

IN THE CLAIMS

Please substitute the claims with the following:

1-59. (Canceled)

60. (Currently Amended) A method in a data processing apparatus for accessing cell data of a spreadsheet file cell in a record-based computer readable-medium, comprising:

determining whether cell data location information for a selected spreadsheet file cell is contained in a first grid record of a plurality of grid records, each grid record storing a mapping between a plurality of spreadsheet file cells and the location of their corresponding cell data location information in a cell data record implemented in the record-based computer readable-medium;

if the cell data location information is contained in the first grid record, determining the cell data location information from the first grid record;

determining the location of cell data corresponding to the spreadsheet file cell in the cell data record based on the cell data location information; and

extracting the cell data from the cell data record,

wherein the cell data location information indicates the location of cell data in the cell data record, the cell data location information is a 16 bit matrix, and the first 10 bits of the 16 bit matrix indicate the cell data record containing the cell data, and the last 6 bits of the 16 bit matrix indicated the location of the cell data within the cell data record.

61. (Previously Presented) The method of claim 60, further comprising:

if the cell data location information is not contained in the first grid record, determining whether the cell data location information is contained in a second grid record.

62. (Previously Presented) The method of claim 60, further comprising:

determining from a property record property information of the spreadsheet file.

63. (Previously Presented) The method of claim 60, wherein determining whether cell data location information for a selected spreadsheet file cell is contained in a first grid record includes comparing a column number of the spreadsheet file cell to a column value range of the first grid record.

64. (Previously Presented) The method of claim 61, wherein determining whether cell data location information for a selected spreadsheet file cell is contained in a first grid record includes comparing a column number of the spreadsheet file cell to a column value range of the second grid record.

65-67. (Canceled).

68. (Currently Amended) The method of claim ~~65~~ 60, where the cell data location information indicates a value of zero if the spreadsheet file cell is empty.

69. (Previously Presented) The method of claim 60, wherein the data processing apparatus is a personal digital assistant.

70. (Currently Amended) A computer-readable medium having stored thereon computer-executable instructions for causing a computer to execute a method for accessing cell data of a spreadsheet file cell in a record-based memory, the method comprising the steps of:

determining whether cell data location information for a selected spreadsheet file cell is contained in a first grid record of a plurality of grid records, each grid record storing a mapping between a plurality of spreadsheet file cells and the location of their corresponding cell data location information in a cell data record implemented in the record-based computer readable-medium;

if the cell data location information is contained in the first grid record, determining the cell data location information from the first grid record;

determining the location of cell data corresponding to the spreadsheet file cell in the cell data record based on the cell data location information; and

extracting the cell data from the cell data record,

wherein the cell data location information indicates the location of cell data in the cell data record, the cell data location information is a 16 bit matrix, and the first 10 bits of the 16 bit matrix indicate the cell data record containing the cell data, and the last 6 bits of the 16 bit matrix indicated the location of the cell data within the cell data record.

71. (Previously Presented) The computer-readable medium of claim 70, further comprising the step of:

if the cell data location information is not contained in the first grid record, determining whether the cell data location information is contained in a second grid record.

72. (Previously Presented) The computer-readable medium of claim 70, further comprising the step of:

determining from a property record property information of the spreadsheet file.

73. (Previously Presented) The computer-readable medium of claim 70, wherein determining whether cell data location information for a selected spreadsheet file cell is contained in a first grid record includes comparing a column number of the spreadsheet file cell to a column value range of the first grid record.

74. (Previously Presented) The computer-readable medium of claim 71, wherein determining whether cell data location information for a selected spreadsheet file cell is contained in a first grid record includes comparing a column number of the spreadsheet file cell to a column value range of the second grid record.

75-77. (Canceled).

78. (Currently Amended) The computer-readable medium of claim ~~75~~ 70, where the cell data location information indicates a value of zero if the spreadsheet file cell is empty.

79. (Previously Presented) The computer-readable medium of claim 70, wherein the computer-readable medium is contained in a personal digital assistant.